

bonded in a tension-free manner between non-heated profiled calender rolls to form the non-woven fabric, without inhomogeneities over the cross-section of the non-woven fabric and without the use of flat bonding, and wherein during the single calendaring step, spacers are formed in the non-woven fabric to thereby form the filter material.

Please cancel claims 2 to 4 without prejudice.

Remarks

I. Introduction

Claims 1 to 4 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

II. Rejection of Claims 1 to 4 Under 35 U.S.C. § 112

Claims 1 to 4 were rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the Final Office Action contends that the recitation of "undrawn and fully drawn synthetic fibers" raises an issue of new matter.

For the reasons set forth in Applicant's Amendment dated August 23, 2002, Applicant respectfully disagrees with the Examiner's contention that the recitation of "fully drawn synthetic fibers" constitutes new matter. However, for the purposes of expediting the allowance of the present application, and without prejudice, Applicant has amended claim 1 to delete "fully" from the phrase "fully drawn". Thus, claim 1 presently recites "undrawn and drawn synthetic fibers".

In view of the foregoing, it is respectfully submitted that claim 1 fully complies with the requirements of 35 U.S.C. § 112, first paragraph, and withdrawal of this rejection with respect to claim 1 is therefore respectfully requested. Claim 2 to 4, on the other hand, are hereby canceled without prejudice, and thus the rejection of these claims is rendered moot. Thus, withdrawal of this rejection with respect to claims 2 to 4 is also respectfully requested.

III. Rejection of Claims 1 to 4 Under 35 U.S.C. §103(a)

Claims 1 to 4 were rejected as being unpatentable under 35 U.S.C. §103(a) over U.S. Patent No 4,496,583 ("Yamamoto") in view of either U.S. Patent No. 5,232,595 ("Meyer") or U.S. Patent No. 4,876,007 ("Narou") and U.S. Patent No. 2,862,542 ("Norton"). In addition, claims 1 to 4 were rejected as being unpatentable under 35 U.S.C. §103(a) over Yamamoto in view of either Meyer or Narou and Norton, and further in view of U.S. Patent No. 4,910,064 ("Sabee"). Applicant respectfully submits that the combination of Yamamoto, Meyer, Narou, Norton and Sabee does not render obvious the present claims for the following reasons.

Claim 1, as amended, relates to a method for manufacturing a pleated filter material from a thermally bonded non-woven fabric. Claim 1 recites that the method includes the step of forming a single fibrous web from undrawn and drawn synthetic fibers. In addition, claim 1 recites that the method includes the step of preheating the fibrous web. Claim 1 also recites that the method includes the step of calendering the single fibrous web in a single calendering step. Furthermore, claim 1 recites that, during the single calendering step, the undrawn fibers in the single fibrous web are bonded in a tension-free manner between non-heated profiled calender rolls to form the non-woven fabric, without inhomogeneities over the cross-section of the non-woven fabric and without the use of flat bonding. In addition, claim 1 recites that, during the single calendering step, spacers are formed in the non-woven fabric to thereby form the filter material.

Applicant respectfully submits that the combination of Yamamoto, Meyer, Narou, Norton and Sabee does not render obvious claim 1 for at least the reason that the combination of Yamamoto, Meyer, Narou, Norton and Sabee fails to teach or suggest, either separately or in combination, all of the limitations recited in claim 1. For example, the combination of Yamamoto, Meyer, Narou, Norton and Sabee fails to teach or suggest, either separately or in combination, a method for manufacturing a pleated filter material wherein the undrawn fibers in a single fibrous web are bonded in a tension-free manner between non-heated profiled calendar rolls, as recited in amended claim 1. As stated in the Examiner's Answer to Appeal Brief (Paper No. 22), "Yamamoto et al [] discloses that the undrawn fibers can be fuse-bonded at a low temperature and teaches pressing the sheet using a heated calender rolls (col. 3, lines 11-21; col. 5, lines 1-4; and col. 8 paragraph 5)."

Examiner's Answer at p. 4 (emphasis added). In addition, neither Meyer, Narou and Norton disclose the use of non-heated calender rolls for bonding in a tension-free manner the undrawn fibers in a single fibrous web. Furthermore, Sabee states that "[i]n cases where stiffer more rigid webs or fabrics are required, they may be obtained by bonding a majority or all of the continuous filament intersections in a heated calender stack having at least two rolls, at least one of which is heated and temperature controlled." Col. 11, lines 11-15 (emphasis added). Sabee further states that "[t]he melt blown fiber deposition layer preferably has a lower melting point or range than the continuous filaments and upon passing through the heated calender rolls soften and fuse or adhere to the continuous filaments [whereby] [t]he bonding may be accomplished by passing the various webs through bonding rolls, both of which are smooth as an alternate to the previously discussed spot bonding rolls." Col. 11, lines 45-56 (emphasis added).

To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Since the combination of Yamamoto, Meyer, Narou, Norton and Sabee does not teach, or even suggest, all of the limitations of claim 1 as more fully set forth above, it is respectfully submitted that the combination of Yamamoto, Meyer, Narou, Norton and Sabee does not render obvious claim 1.

It is respectfully submitted that the cases of In re Fine, supra, and In re Jones, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), make plain that the Final Office Action's generalized assertions that it would have been obvious to modify or combine the references do not properly support a § 103 rejection. It is respectfully submitted that those cases make plain that the Final Office Action reflects a subjective "obvious to try" standard, and therefore does not reflect the proper evidence to support an obviousness rejection based on the references relied upon. In particular, the Court in the case of In re Fine stated that:

The PTO has the burden under section 103 to establish a *prima facie* case of obviousness. It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. This it has not done. . . .

. . . .

Instead, the Examiner relies on hindsight in reaching his obviousness determination. . . . One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

In re Fine, 5 U.S.P.Q.2d at 1598 to 1600 (citations omitted; italics in original; emphasis added). Likewise, the Court in the case of In re Jones stated that:

Before the PTO may combine the disclosures of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. . . .

Conspicuously missing from this record is any evidence, other than the PTO's speculation (if it be called evidence) that one of ordinary skill . . . would have been motivated to make the modifications . . . necessary to arrive at the claimed [invention].

In re Jones, 21 U.S.P.Q.2d at 1943 & 1944 (citations omitted; italics in original).

That is exactly the case here since it is believed and respectfully submitted that the present Final Office Action offers no evidence whatsoever, but only conclusory hindsight, reconstruction and speculation, which these cases have indicated does not constitute evidence that will support a proper obviousness finding. Unsupported assertions are not evidence as to why a person having ordinary skill in the art would be motivated to modify or combine references to provide the claimed subject matter of the claims to address the problems met thereby. Accordingly, the Office must provide proper evidence of a motivation for modifying or combining the references to provide the claimed subject matter.

More recently, the Federal Circuit in the case of In re Kotzab has made plain that even if a claim concerns a "technologically simple concept" -- which is not

the case here -- there still must be some finding as to the "specific understanding or principle within the knowledge of a skilled artisan" that would motivate a person having no knowledge of the claimed subject matter to "make the combination in the manner claimed," stating that:

In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as opposed to multiple sensors controlling multiple valves, is a technologically simple concept. With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab's invention to make the combination in the manner claimed. In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper prima facie case of obviousness in rejecting [the] claims . . . under 35 U.S.C. Section 103(a) over Evans.

In re Kotzab, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (emphasis added). Again, it is believed that there have been no such findings.

In summary, it is respectfully submitted that the combination of Yamamoto, Meyer, Narou, Norton and Sabee does not render obvious amended claim 1. It is therefore respectfully submitted that claim 1 is allowable for these reasons, and withdrawal of this rejection with respect to claim 1 is therefore respectfully requested.

Claim 2 to 4, on the other hand, are hereby canceled without prejudice, and thus the rejection of these claims is rendered moot. Thus, withdrawal of this rejection with respect to claims 2 to 4 is also respectfully requested.

IV. Conclusion

Attached hereto is a marked-up version of the changes made to the claims by the current Amendment. The attached page is captioned "**Version with Markings to Show Changes Made.**"

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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Version with Markings to Show Changes Made

IN THE CLAIMS:

Claim 1 has been amended without prejudice as follows:

1. (Three Times Amended) A method for manufacturing a pleated filter material from a thermally bonded non-woven fabric, comprising :
forming a single fibrous web from undrawn and [fully] drawn synthetic fibers;
pre-heating the fibrous web;
calendering the single fibrous web in a single calendering step, wherein during the single calendering step, the undrawn fibers in the single fibrous web are bonded in a tension-free manner between non-heated profiled calender rolls to form the non-woven fabric, without inhomogeneities over the cross-section of the non-woven fabric and without the use of flat bonding, and wherein during the single calendering step, spacers are formed in the non-woven fabric to thereby form the filter material.

Claims 2 to 4 have been canceled without prejudice.